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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,197	07/22/2003	Damon D. Brink	157972-0004	1797

1622 7590 11/28/2006

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EXAMINER

MILLER, BRIAN E

ART UNIT PAPER NUMBER

2627

DATE MAILED: 11/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/626,197	BRINK ET AL.	
	Examiner	Art Unit	
	Brian E. Miller	2627	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 September 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 12-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 17-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-24 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

Art Unit: 2627

Claims 1-24 are now pending, with claims 12-16 being previously withdrawn due to a restriction requirement.

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 17-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter that was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The aforementioned claims recite “plating means” for performing various functions, however, the specification does not particularly define the specific structure that defines this “plating means” for each function. If applicant is intending to invoke 112 sixth paragraph, applicant is required to specifically and clearly define in the specification what structure is encompassed by the claimed means plus function language.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 17-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. (a) Each of the claims recite a “plating means” which are for different functions, e.g., “for securing protrusions” or “for covering protrusions” or “for increasing retention torque.”

Art Unit: 2627

From this language, it is not readily apparent whether the “plating means” is the same or different in each claim, in order to produce these different functional limitations; (b) In addition, the claims remain incomplete for not defining the specific structure to encompass the claimed functional result; (c) claim 17 (and similarly for claims 18-20, 22-23) it is not readily apparent where these “plurality of protrusions” are provided or formed from; (d) claims 21 & 24, the phrase “in the base metal” lacks antecedent basis.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 17, 20-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Braunheim et al (US 6,754,044). In so far as the claims are clear, definite and understood, in reference to the above 112 first and second paragraphs, Braunheim et al discloses a swage mount 17 for a disc drive suspension assembly (including at least elements 10, 20 as shown in FIG. 1), comprising: a flange 48/46; and a hub 52 made of a base metal extending from the flange 48/46 and having at least one surface protrusion (considered inherent to the hub material, e.g., stainless steel), at least an outer surface of the hub being plated with a first metal plating (unnumbered, see col. 17, lines 26-27, i.e., “plating with a harder material.” It is considered that this “plating means” would

Art Unit: 2627

sufficiently: secure protrusions (claim 17); secure material inclusions (claims 20, 21); cover protrusions (claim 22); cover material inclusions (claim 24), in so far as the structure has been specifically defined in the claim(s).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1-9, 11, 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Braunheim et al. For a description of Braunheim et al, see the rejection, supra.

The limitations of claim 1 are encompassed by the teachings of Braunheim et al, as described above, however, further with respect to claim 1, Braunheim et al, is expressly silent as to the metal plating having a particular thickness, e.g., ranging from two fifths of the height of the protrusion to twice the height of the protrusion, and to the other thicknesses of the metal plating, as set forth by claims 5 thru 8; nor with respect to claim 2, wherein the surface roughness, Ra, of the first metal plating is at least 5% of the thickness of the first metal plating.

Art Unit: 2627

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided such a relationship(s) to the microstructure of Braunheim. The motivation would have been: absent a showing of criticality and any unobvious or unexpected results, the relationship set forth in the claim would have resulted through the course of routine engineering optimization and experimentation. Additionally, the law is replete with cases in which the mere difference between the claimed invention and the prior art is some range, variable or other dimensional limitation within the claims, patentability cannot be found. It furthermore has been held in such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range(s); see *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990). Moreover, the instant disclosure does not set forth evidence ascribing unexpected results due to the claimed dimensions; see *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338 (Fed. Cir. 1984), which held that the dimensional limitations failed to point out a feature which performed and operated any differently from the prior art; and see *In re Boesch*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980), that holds determining optimal values of result effective variables would have involved only routine skill in the art.

With respect to claim 3, Braunheim et al is further considered to encompass wherein the first metal plating is harder than the base metal by an amount equal to or exceeding 5 Vickers hardness numbers (VHN), e.g., Braunheim et al is considered to teach the metal plating would be at least 20-50 hardness Vickers harder (see also col. 10, lines 47-49);

With respect to claim 4 and the application of a second metal plating over the first metal plating, it would have been obvious to one having ordinary skill in the art at the time the invention was

made to have provided a second subsequent metal plating(s) to the first metal plating. The motivation would have been: lacking any criticality or any unobvious or unexpected results, providing a second metal plating would have resulted through routine engineering optimization and experimentation, such that the effects of the first plating layer would be enhanced, as would have been realized and within the knowledge of a skilled artisan. See also *St. Regis Paper Co. v Bemis Co.* 193 USPQ 8 (7<sup>th</sup> Cir. 1977) with respect to using a duplication of components, e.g., layers in the instant application, for providing multiple effects.

With respect to claims 9, 11, 18, 19 and the materials of the plating, e.g., nickel, and the protrusions (in so far as they have been positively set forth), e.g., chromium carbide or nitride, while Braunheim et al does teach using carbides or nitrides for the swage mount area (see col. 11, lines 50-52), is silent as to the plating material, e.g., nickel, or of chromium based protrusions. The Examiner maintains that as these materials are well known in the art, it would have been considered obvious to have utilized such materials on the swage mount of Braunheim et al, as a matter of design choice. Furthermore, it has been held to be within the knowledge of a skilled artisan to select a known material on the basis of its suitability for the intended use; see *In re Leshin*, 125 USPQ 416 (CCPA 1960) and *In re Aller*, 105 USPQ 233 (CCPA 1955), regarding these matters.

### ***Double Patenting***

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686

Art Unit: 2627

F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claims 1-8, 10, 17, 20-24 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3-7, 10-14, 17-30, 48-55 of copending Application No. 10/241,609. Although the conflicting claims are not identical, they are not patentably distinct from each other. The commonly claimed subject matter includes: A swage mount for a disc drive suspension assembly comprising: a flange; and a hub made of a base metal extending from the flange, at least an outer surface of the hub being plated with a first metal plating; wherein the first metal plating is harder than the base metal by an amount equal to or exceeding 5 Vickers hardness numbers (VHN); wherein the first metal plating is of sufficient thickness as to secure existing surface protrusions of the base metal; wherein the first metal plating is of sufficient thickness so as to cover surface particulates and defects in the base metal; wherein the first metal plating is described by a surface roughness, Ra, and plating thickness, t, such that  $Ra \geq 0.05 t$ ; wherein the plating increases the corrosion resistance of the base metal. Other claims of the instant application, e.g., 5-8, set forth the thicknesses of the first metal plating layer that are within the claimed range of the '609 claims, e.g., 24-30. The '609 application claims, however, do not set forth that the metal plating thickness ranges from "two fifths of the height of the protrusion to twice the height of the protrusion." as in claim 1 of the instant application. This range, however, lacking criticality and any unobvious or unexpected



Art Unit: 2627

results, would have been provided through routine engineering optimization and experimentation of a skilled artisan, in order to optimize the swage mount hardness properties. See also the above court cases as defined in the 103 rejection, above, as the same rationale would apply here as well.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Response to Arguments***

12. Applicant's arguments filed 9/14/06 have been fully considered but they are not persuasive.

A...Applicant's "arguments" fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without *specifically* pointing out how the language of the claims patentably distinguishes them from the references. Applicants' quote from the disclosure of Braunheim, without specifically detailing how the claims of the instant invention overcome the prior art is non-responsive.

B...Applicant's "arguments" further do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections. Applicant does not specifically set forth what claim language overcomes the prior art. There are multiple independent claims with differing scope and applicant has not addressed any specifically. A general statement of patentability to encompass all of the pending claims is not appropriate.

Art Unit: 2627

C...Applicant is also nonresponsive to the obviousness-type double patenting rejection set forth in the previous office action.

D...The Examiner maintains all of the rejections of record, as applicant has neither addressed them sufficiently nor amended the claims appropriately, to overcome these rejections.

***Conclusion***

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian E. Miller whose telephone number is (571) 272-7578. The examiner can normally be reached on M-TH 6:30am-4:00pm.

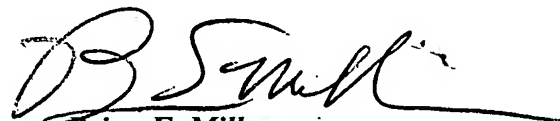
Art Unit: 2627

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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**Brian E. Miller**  
**Primary Examiner**  
**Art Unit 2627**

BEM  
November 21, 2006